

INCH-POUND

MIL-F-15733/1H  
w/AMENDMENT 1  
14 October 2004  
SUPERSEDING  
MIL-F-15733/1H  
27 February 2003

MILITARY SPECIFICATION SHEET

FILTERS, RADIO FREQUENCY INTERFERENCE,  
HERMETICALLY SEALED, STYLE FL22

Inactive for new design after 13 April 1983. Used for replacement purposes only.  
For new design use MIL-PRF-15733/72. See table II for substitution data.

This specification is approved for use by all Departments  
and Agencies of the Department of Defense.

The complete requirements for acquiring the filters described herein shall  
consist of this specification sheet and the latest issue of MIL-PRF-15733.

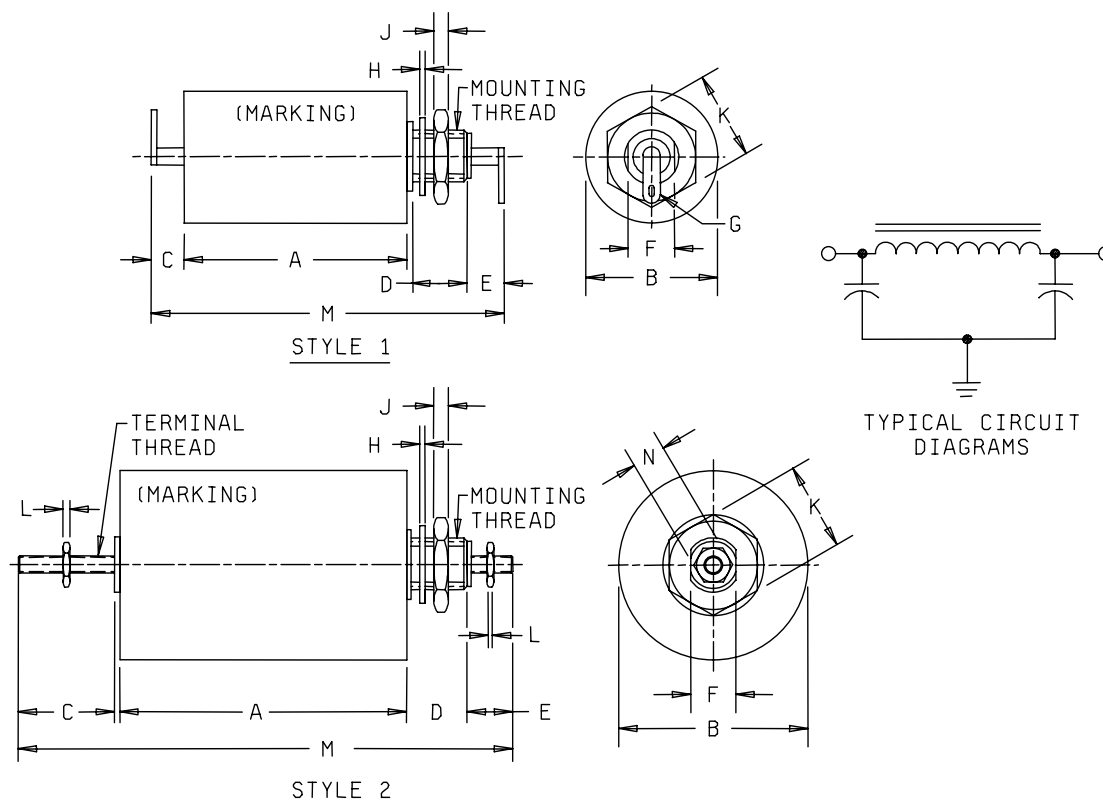


FIGURE 1. Case dimensions and circuit diagram.

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Dimensions.

Dash No.	A		B		C		D		E		F		G
	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	Min	Max	
0001	2.032 (51.61)	2.156 (54.76)	.688 (17.48)	.812 (20.62)	.172 (4.37)	.312 (7.92)	.265 (6.73)	.286 (7.26)	.125 (3.18)	.250 (6.35)	.245 (6.22)	.255 (6.48)	.09 x .187
0002	2.313 (58.75)	2.437 (61.90)	.938 (23.83)	1.062 (26.97)	.141 (3.58)	.312 (7.92)	.359 (9.12)	.380 (9.65)	.125 (3.18)	.312 (7.92)	.435 (11.05)	.445 (11.30)	.06 x .125 or .09 x .187
0003	2.688 (68.28)	2.812 (71.42)	.938 (23.83)	1.062 (26.97)	.125 (3.18)	.250 (6.35)	.359 (9.12)	.380 (9.65)	.125 (3.18)	.250 (6.35)	.435 (11.05)	.445 (11.30)	.06 x .125 or .09 x .187
0004	2.688 (68.28)	2.812 (71.42)	1.063 (27.00)	1.187 (30.15)	.187 (4.75)	.312 (7.92)	.370 (9.40)	.380 (9.65)	.187 (4.75)	.312 (7.92)	.365 (9.27)	.375 (9.52)	.09 x .187
0005	2.438 (61.93)	2.562 (65.07)	1.188 (30.18)	1.312 (33.32)	.125 (3.18)	.250 (6.35)	.370 (9.40)	.380 (9.65)	.125 (3.18)	.250 (6.35)	.525 (13.34)	.535 (13.59)	.093 Dia.
0006	2.938 (74.63)	3.062 (77.77)	1.313 (33.35)	1.437 (36.50)	.308 (7.82)	.410 (10.41)	.370 (9.40)	.380 (9.65)	.308 (7.82)	.410 (10.41)	.525 (13.34)	.535 (13.59)	N/A
0007	3.188 (80.98)	3.312 (84.12)	1.438 (36.53)	1.562 (39.67)	.308 (7.82)	.410 (10.41)	.370 (9.40)	.380 (9.65)	.308 (7.82)	.410 (10.41)	.650 (16.51)	.660 (16.76)	N/A

Dash No.	H		J		K		L		M	N		Mounting thread	Terminal thread	Terminal style
	Min	Max	Min	Max	Min	Max	Min	Max	Max	Min	Max			
0001	.017 (.43)	.027 (.69)	.12 (3.0)	.13 (3.3)	.427 (10.85)	.447 (11.35)	N/A		3.00 (76.2)	N/A		.312-24 UNF-2A	N/A	1
0002	.017 (.43)	.027 (.69)	.12 (3.0)	.13 (3.3)	.615 (15.62)	.698 (17.73)	N/A		3.63 (92.2)	N/A		.500-28 UNEF-2A	N/A	1
0003	.017 (.43)	.027 (.69)	.12 (3.0)	.13 (3.3)	.615 (15.62)	.698 (17.73)	N/A		3.78 (96.0)	N/A		.500-28 UNEF-2A	N/A	1
0004	.03 (.8)	.04 (1.0)	.12 (3.0)	.13 (3.3)	.615 (15.62)	.635 (16.13)	N/A		3.82 (97.0)	N/A		.437-20 UNF-2A	N/A	1
0005	.017 (.43)	.027 (.69)	.151 (3.84)	.161 (4.09)	.865 (21.97)	.885 (22.48)	N/A		3.44 (87.4)	N/A		.625-24 UNEF-2A	N/A	1
0006	.017 (.43)	.027 (.69)	.151 (3.84)	.161 (4.09)	.865 (21.97)	.885 (22.48)	.12 (3.0)	.13 (3.3)	4.85 (123.2)	.37 (9.4)	.38 (9.7)	.625-24 UNEF-2A	.190-32 UNF-2A	2
0007	.017 (.43)	.027 (.69)	.151 (3.84)	.161 (4.09)	1.052 (26.72)	1.072 (27.23)	.12 (3.0)	.13 (3.3)	5.03 (127.8)	.37 (9.4)	.38 (9.7)	.750-20 UNEF-2A	.190-32 UNF-2A	2

Dash No.	Max weight lbs.
0001	.12
0002	.24
0003	.26
0004	.33
0005	.39
0006	.58
0007	.78

Inches	mm	Inches	mm
.06	1.5	.125	3.18
.09	2.3	.187	4.75
.093	2.36		

NOTES:

1. Dimensions are in inches.
2. Metric equivalents are in parenthesis.
3. Metric equivalents are given for general information only.
4. Mounting hardware shall be supplied with the filter.
5. Circuit diagram is for information only.

FIGURE 1. Case dimensions and circuit diagrams - Continued.

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REQUIREMENTS:

Dimensions and configuration: See figure 1.

Case: Metal.

Case and mounting hardware finish: In accordance with MIL-PRF-15733. Pure tin finish is prohibited.

Terminals:

Style 1 - Solderable.

Style 2 - Threaded stud.

Recommended mounting torque:

Thread	Maximum torque (in-lb)		Thread	Maximum torque (in-lb)
.312-24 UNF-2A	10		.625-24 UNEF-2A	85
.500-28 UNEF-2A	80		.750-20 UNEF-2A	100
.437-20 UNF-2A	70		.190-32 UNF-2A	18

Weight: See figure I.

Operating temperature range: -55°C to +85°C.

Rated voltage: See table I.

Rated current: See table I.

Insertion loss: In accordance with MIL-PRF-15733 and the following:

(at +25°C): See table I.

(at -55°C and +85°C): Insertion loss shall be as specified in table I except that a degradation of 2 dB from the value specified in table I shall be allowed up to 10 MHz.

Seal: In accordance with MIL-PRF-15733.

\* Temperature rise: In accordance with MIL-PRF-15733 and the following:

25°C maximum for parts rated up to and including 10 amperes.

35°C maximum for parts rated above 10 amperes.

Dielectric withstanding voltage: In accordance with MIL-PRF-15733 except the duration of application of voltage shall be 1 to 5 seconds.

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Insulation resistance: In accordance with MIL-PRF-15733. Insulation resistance measured between both terminals connected together and the case shall be at least:

Dash numbers

0001, 0002, and 0004 - 1,000 megohms.

0003, 0005, 0006, and 0007 - 500 megohms.

Voltage drop: .5 volt, maximum.

Terminal strength: In accordance with MIL-PRF-15733 and the following:

Style 2 - Method 211, MIL-STD-202; test condition E.

Style 1 - Method 211, MIL-STD-202; test condition A (applied force: 5 pounds) and B (5 bends).

Salt atmosphere (corrosion): In accordance with MIL-PRF-15733 and Method 101, MIL-STD-202; test condition A.

TABLE I. Electrical characteristics.

Dash number	Circuit diagram	Rated voltage (V dc)	Rated current (A)	Minimum insertion loss (dB) in accordance with MIL-STD-220 at +25°C <sup>1/</sup>						
				.15 MHz	.30 MHz	.60 MHz	1 MHz	10 MHz	100 MHz	1,000 MHz
0001	$\pi$	100	1	50	60	60	60	60	60	60
0002	$\pi$	100	5	40	50	60	60	60	60	60
0003	$\pi$	100	5	50	60	60	60	60	60	60
0004	$\pi$	100	10	40	50	60	60	60	60	60
0005	$\pi$	100	10	50	60	60	60	60	60	60
0006	$\pi$	100	20	50	60	60	60	60	60	60
0007	$\pi$	100	30	50	60	60	60	60	60	60

<sup>1/</sup> Full load insertion loss measurements shall be performed at frequencies between 150 kHz to 20 MHz inclusive; all other measurements shall be performed at no-load.

Shock (specified pulse): In accordance with MIL-PRF-15733 and Method 213, MIL-STD-202; test condition I.

Mounting: Filters shall be rigidly mounted by the body.

Insertion loss shall be measured and shall meet initial requirements.

Vibration, high frequency: In accordance with MIL-PRF-15733 and Method 204, MIL-STD-202; test condition D (20g).

Part or Identifying number (PIN): M15733/01- (dash number from figure 1 and table I).

The Qualified Products List (QPL) associated with this inactive for new design specification will be maintained until acquisition of the products is no longer required where upon the specification and QPL will be canceled.

Supersession data: See table II.

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Table II. Supersession data.

Superseded PIN	Superseding PIN
M15733/01-	M15733/72-
0001	0037
0002	0042
0003	0043
0004	0045
0005	0045
0006	0048
0007	0051

- \* Referenced documents: In addition to MIL-PRF-15733, this specification sheet references the following documents:

MIL-PRF-15733/72  
MIL-STD-202  
MIL-STD-220

- \* Amendment notations. The margins of this specifications sheet are marked with an asterisk to indicate modifications generated by this amendment. This was done as a convenience only and the Government assumes no liability whatsoever for any inaccuracies in these notations. Bidders and contractors are cautioned to evaluate the requirements of this document based on the entire content irrespective of the marginal notations.

Custodians:  
Army - CR  
Navy - EC  
Air Force - 11  
DLA CC

Preparing activity:  
DLA - CC  
  
(Project 5915-0452)

Review activities:  
Army - AT, AV, MI  
Navy - AS, OS, SH  
Air Force - 19, 99

- \* NOTE: The activities listed above were interested in this document as of the date of this document. Since organizations and responsibilities can change, you should verify the currency of the information above using the ASSIST Online database at <http://www.dodssp.daps.mil>.